

## **Amendments to the Claims**

This listing of claims will replace all prior versions and listings of claims in the application.

### **Listing of Claims:**

1. (Currently Amended) A method of content delivery in a network, comprising:
  - associating each of a plurality of devices in a Domain Name System (DNS) with at least one cache server system;
  - assigning to the DNS devices a common address;
  - advertising, by each of the DNS devices, the common address within the network, wherein the common address is transmitted within the network in association with Border Gateway Patrol (BGP) messages;
  - monitoring one or more load characteristics of one or more of the cache server systems in the network;
  - determining if one or more of the load characteristics exceeds a predefined overload metric; and
  - discontinuing advertising of the common address by each DNS device associated with a cache server system determined to have a load characteristic that exceeds the predefined overload metric.
2. (Original) The method of claim 1, wherein the common address is an anycast address.
3. (Currently Amended) The method of claim 1, wherein the ~~advertising act comprises:~~ sending routing information BGP messages are transmitted to a plurality of routers in the network ~~in accordance with the Border Gateway Protocol (BGP).~~
4. (Previously Presented) The method of claim 1, wherein the cache server systems are geographically distributed across the network.

5. (Previously Presented) The method of claim 1, wherein the DNS devices are collocated with the cache server systems with which the DNS devices are associated.
6. (Previously Presented) The method of claim 1, wherein each cache server system and associated DNS devices are located in a different Internet Service Provider Point of Presence.
7. (Previously Presented) The method of claim 1, wherein each cache server system and associated DNS device is located at or near an entry point of the network.
8. (Canceled)
9. (Previously Presented) The method of claim 1, wherein at least one of the cache server systems comprises at least two cache servers connected in a cluster, and wherein the at least two cache servers are coupled to a switch usable to select from among the at least two cache servers based on a selection policy.
- 10-13. (Cancelled)
14. (Currently Amended) The method of claim 1, further comprising ~~after discontinuing advertisement by a DNS device for an associated cache server system having a load characteristic that exceeds the predefined overload metric, restarting advertising of the common address after~~ when the load characteristic decreases below the predefined ~~overload metric.~~
15. (Canceled)
16. (Previously presented) The method as recited in claim 3, further comprising storing, by each of the routers, multiple routes in association with the common address in a routing table.

17. (Previously presented) The method as recited in claim 16, further comprising:
- receiving a DNS resolution request at one of the routers, wherein the request specifies the common address and requests resolution of a DNS name;
  - selecting a route representing the shortest network distance to one of the DNS devices; and
  - resolving the DNS name to a unique address of the cache server system associated with the one of the DSN devices.

18-29. (Cancelled)

30. (Currently Amended) A system for content delivery in a network comprising:
- a plurality of nodes;
  - wherein each node comprises a plurality of Domain Name System (DNS) device[[s]], each DNS device[[s]] associated with a cache server system;
  - wherein the DNS devices are assigned a common address, and wherein each DNS device is operable to advertise[[s]] the common address within the network, the common address being transmitted within the network in association with Border Gateway Patrol (BGP) messages;
  - wherein each node is operable to ~~DNS device-~~ monitor[[s]] one or more load characteristics of the ~~DNS device's~~ associated cache server system in the node network; and
  - wherein each DNS device is operable to ~~discontinue[[s]]~~ advertising of the common address of the DNS device's associated cache server system if the associated cache server system has a load characteristic that exceeds the predefined overload metric.

31. (Currently Amended) The system of claim 30, wherein each DNS device associated with a cache server system determined to have a load characteristic that exceeds the predefined overload metric is operable to restart[[s]] advertising of the common address after ~~when the load characteristic decreases below the predefined overload metric.~~

32. (Canceled)

33. (Currently Amended) The system of claim 30, wherein the common address is an anycast address and the ~~DNS devices perform advertising by sending routing information~~ BGP messages are transmitted to a plurality of routers in the network ~~in accordance with the Border Gateway Protocol (BGP).~~
34. (Currently Amended) A computerized device comprising:
- a processor;
  - a memory unit that stores instructions associated with an application executed by the processor; and
  - an interconnect coupling the processor and the memory unit, enabling the computerized device to execute the application and perform operations of:
    - associating each of a plurality of devices in a Domain Name System (DNS) with one of a plurality of cache server systems located in the network and maintaining on each of the cache server systems content stored on an origin server;
    - assigning to the DNS devices a common address;
    - advertising, by each of the DNS devices, the common address within the network, wherein the common address is transmitted within the network in association with Border Gateway Patrol messages to indicate that the content is available for retrieval from each associated cache server system by end user systems communicatively connected to the network;
    - monitoring one or more load characteristics of one or more of the cache server systems in the network;
    - determining if one or more of the load characteristics exceeds a predefined overload metric; and
    - discontinuing advertising of the common address by each DNS device associated with a cache server system determined to have a load characteristic that exceeds the predefined overload metric.

35. (Currently Amended) The computerized device of claim 34, further comprising ~~after discontinuing advertisement by a DNS device for an associated cache server system having a load characteristic that exceeds the predefined overload metric, restarting advertising of the common address after when the load characteristic decreases below the predefined overload metric.~~
36. (Canceled)
37. (Currently Amended) The computerized device of claim 34, wherein the common address is an anycast address and the ~~advertising act includes sending routing information~~ BGP messages are transmitted to a plurality of routers in the network ~~in accordance with the Border Gateway Protocol (BGP).~~
38. (Currently Amended) A computer program product including a non-transitory computer-readable medium having instructions stored thereon for performing content delivery operations in a network, such that the instructions, when carried out by a processing device, enable the processing device to perform the operations of:
- associating each of a plurality of devices in a Domain Name System (DNS) with one of a plurality of cache server systems located in the network and maintaining on each of the cache server systems content stored on an origin server;
  - assigning to the DNS devices a common address;
  - advertising, by each of the DNS devices, the common address within the network, wherein the common address is transmitted within the network in association with Border Gateway Patrol (BGP) messages ~~to indicate that the content is available for retrieval from each associated cache server system by end-user systems communicatively connected to the network;~~
  - monitoring one or more load characteristics of one or more of the cache server systems in the network;
  - determining if one or more of the load characteristics exceeds a predefined overload metric; and

discontinuing advertising of the common address by each DNS device associated with a cache server system determined to have a load characteristic that exceeds the predefined overload metric.

39. (Currently Amended) The non-transitory computer readable medium of claim 38, further comprising ~~after discontinuing advertisement by a DNS device for an associated cache server system having a load characteristic that exceeds the predefined overload metric,~~ restarting advertising of the common address after ~~when~~ the load characteristic decreases below the predefined overload metric.
40. (Canceled)
41. (Currently Amended) A method of content delivery in a network, comprising:
- associating each of a plurality of devices in a Domain Name System (DNS) with one of a plurality of cache server systems located in the network and maintaining on each of the cache server systems content stored on an origin server;
  - assigning to the DNS devices a common address;
  - advertising, by each of the DNS devices, the common address within the network, wherein the common address is transmitted within the network in association with Border Gateway Patrol (BGP) messages ~~to indicate that the content is available for retrieval from each associated cache server system by end user systems communicatively connected to the network;~~
  - monitoring one or more load characteristics of one or more of the cache server systems in the network;
  - determining if one or more of the load characteristics exceeds a predefined overload metric;
  - discontinuing advertising of the common address by each DNS device associated with a cache server system determined to have a load characteristic that exceeds the predefined overload metric; and

~~after discontinuing advertisement by a DNS device for an associated cache server system having a load characteristic that exceeds the predefined overload metric; performing the steps of:~~

~~enabling the cache server system to be accessed by another system that has already resolved a DNS name to the DNS device until the DNS name expires; and~~

~~restarting advertising of the common address after ~~when~~ the load characteristic decreases below the predefined overload metric.~~

42. (Currently Amended) The method as in claim 1, wherein the advertising act comprises;  
~~by each of the DNS devices, the common address within the network includes~~ indicating that content is available for retrieval by end user systems from each associated cache server system communicatively connected to the network.
43. (Previously Presented) The method as in claim 42, wherein the cache server system comprises a single cache server.
44. (Currently Amended) The system as in claim 30, wherein ~~each DNS device advertises the~~ common address is advertised within the network to indicate that [[the]] content is available for retrieval by end user systems from the associated cache server system communicatively connected to the network.
45. (Previously Presented) The system as in claim 44, wherein the cache server system comprises a single cache server.
46. (Previously Presented) The system as in claim 30, wherein the cache server system comprises a plurality of cache servers.
47. (New) The computerized device as in claim 34, wherein at least one of the plurality of cache server systems comprises a single cache server.

48. (New) The non-transitory computer readable medium as in claim 38, wherein at least one of the plurality of cache server systems comprises a single cache server.
49. (New) The non-transitory computer readable medium as in claim 38, wherein the BGP messages are sent to a plurality of routers in the network.
50. (New) The method as in claim 41, wherein at least one of the plurality of cache server systems comprises a single cache server.
51. (New) The method as in claim 41, wherein the BGP messages are sent to a plurality of routers in the network.